

2/25

university note book

Brazil 1979

NAME

Amazonia #3

SUBJECT



No. 45-4852 (S-1812-N) END OPEN • 7 $\frac{3}{4}$ IN. x 5 IN. (19.7 cm x 12.7 cm) • 80 SHEETS • NARROW RULED
No. 45-4872 (S-1810-N) SIDE OPEN

VERNON McMILLAN, Inc., ELIZABETH, N.J. 07208

AMAZONAS, BRAZIL

6892

les

AMAZONAS, BRAZIL

Cleofe E. Calderon, O. P. Monteiro
& J. Guedes

*Collected under the auspices of Instituto Nacional de Pesquisas
Amazonicas (INPA) and the Smithsonian Institution*

Laque br. comp.

Arthrostylidium

2867

2894 -

2910

(2970) flowers -

K-177 (B or A.?)

K. 190 +

K. 209 +

K-210 +

K. 222 (c a 190) flowers -

K 236

2867 — c23/4 - culms & rhizomes —

2894 — c23/3 c, branch - rh -

2910 — 23/6 c, br, rh -

(2970)
flowers

K-177 (B or A?) — 23/1 c, br, ~~rh~~ -

K-190

K-209 — 23/1 c, br -

K-210 — 23/6 c, br, rh -

K-222 (fl. 190) — 23/1 c, br -

K-236 23/1 c. / br -

BOTÂNICA

Nº do coletor: 893.

INPA MANAUS-AM

Sigla e endereço do Herbário

Nome

Endereço

Pare mais informações sobre estudos de
projetos futuros

Porto Velho

Secretaria de Planejamento do Governo
Secretaria de Obras - Eng.º Aldemir
Guerreiro Vilar.

Então do DNER em P. Velho há também
1 tel. 3815-
este endereço do
engenheiro

Brazil 1979

2841

Amazonia # 3

Pteris caudata

Very delicate fern growing
in a bush of a tree

Pteris caudata

2842

Growing on rocks of creek

Pteris caudata

2843

Growing on rocks

Pteris caudata

2844

Growing on rocks of
creek

Also

9581 found
E = background

(near loc. & tag as before 2841)
~~Blackish (faded)~~ ^{rock #2}

could be the same
Pteridophyte

Very delicate fern growing
on rock of a creek

Pteridophyte 2842

growing on rocks of creek

Pteridophyte 2843

growing on rock

Pteridophyte 2844

larger fern on rocks of
creek (at present almost
dry -)

Oregonia 2845
Terrestrial, near creek -
unicon

Bamboo 2846
Gnede -

Great ^{clumps} ~~clumps~~ with increas-
ingly thicker shoot as they
come up from rhizome
(not true is the same as
climbing one collected yester-
day (2828)). Thicker shoots
up to 3 cm, starting as
rubs of less than 1 cm.
Great and then arching
over repeat. about 8 in tall
Beautiful rhizome (collected)
showing the increase of big
smooth culms, with
some white wax when
young - look like A
- both almost? a flowering
when young. Spring - no

flower. Leaves very large
pinnate, ~~thick~~ thick
Also in upper or lower
branches the leaves are
narrower.
(It seems it is the same
collected early as 2828
but then with a very
young, the beginning of a
new clump.)

FAA: Bud & leaves (2 v.)
rhizome & falling material
Photos: few in color (but
poor light)

x check the B & W photo: Roll #16. looks like
is a mixture of this Gnede and the
thin one collected early -

July 15 2847
Roldán, ca. 3-⁵ km of San José, N.S.

~~Musaceae~~
Musaceae

Drool. red, fruit green
(unicum)

~~Euphorbiaceae?~~ ~~Shrub~~ 2848
Bythneria?

Climbing (treepole), at edge
of forest. Flowers yellow green.

~~Melastomataceae~~ Solanaceae 2849

Small tree ca 5 m, with green
fruit & flower. bark like

Lepurina. landpin. 2850
Larrie ?

Small tree, ca 4 m, with
fruit only, at edge of
humid forest.

at the top of ^{road from S.L. to} ^{A. M. M. M.} ^{Si'}
ca 1/2 km. N. of ^{road from S.L. to} ^{A. M. M. M.} ^{Si'}
Liparapa. This area (N. of ^{road from S.L. to} ^{A. M. M. M.} ^{Si'}
Palu 2851

Small, ca 1.50, with red
orange fruit.

Theophrastaceae 2852

Benje

Plant ca. 80 cm. near
Liparapa, like a small plant -
with short, thick trunk-like
flower small, in a raceme

Conchocarpus? Zing.

2853

Small plant with white flowers
at edge of igarape

Rubiaceae

2854

Prunella cf. Prancei
Tree, ca. 5m, with fruit
only.

~~Rubiaceae~~ Boraginaceae 2855

Shrub, ca. 1.50 with small
flowers (pinkish, (se' white).)

Rubiaceae

2856

Beautiful inflorescence of large
white flowers on top of stem -
near igarape -

Rubiaceae

2857

Shrub, ca. 1.50 with fruit,
growing near edge of igarape

Rhamnaceae

2858

Shrub, ca. 1.20 - 1.50 with
large flowers, white with faint
hint of violet inside and one
violet line on each petal. Glabrous
hairs on the inflorescence.
PAA, photo

Rhamnaceae

2859

Robust plants, up to 1.60 m?
habit of inflorescence. Dark wine
red, flowers yellow ± when
as unopened, then pale ivory
pink.
no PAA, Photo color

Herculiaceae

2860

Shrub, ca 1.50 m with
fruits only.

2861

Ruthless

Metrodorea flanda Krause det. B. J. ...
Tree, ca. 10 m, near ...

2862

Shrub, ca. 1.50 m with large
yellow
orange (hole)

Helotomataceae

2863

Miconia ericocalyx Bogn.

Shrub on all trees ca. 2-4 m
with young fruit.

July 16

2869

July 16, 2864
Rondônia, ~~Para~~ Minas Gerais
São Lourenço, 20 km NW of
Matupá, Pará; 20 km NW of
São Lourenço, Pará.

Putrescine

Herb, near ipomoei. bract
red, flowers yellow.

Legumin. Papilo.

2865

thinly forest, common, ~~seen~~
at edge of forest. Flowers violet
blue.

Crassotis

2866

growing at edge of forest
apparent.

Arthrostylidium
~~Arthrostylidium~~

2867

Very young population, main
plant / seed probably 1 or 2
years ago, but one or 2
nodes still with life &
few in flower. Lots of
new plants in 7 stages
were already climbing and
about 3 m high.

culm leaf with erect
blade, at least when
young and in new shoots
like bamboo type.

We found a very old stem
with culms about 1 cm or
so, bunched with small
hole in center. We saw
all nodes with large
no. of bracts in a row
and plant with dry thick
central one
spike with two big
raceme?

~~Potamogeton~~ leaves very delicate
small

Photo: lot 9

5. wh-
leaves: FAA

bulky rhizomes 2
in flower

Piperaceae

2868

Shrub, ca 1.70 m in forest
mixed with bamboo

Marantaceae

2869

Flower yellow, anther

July 17

2870

Pondoma, the road NW of
Mutumpana, across N bank
of Rio Madeira. Misiones
to Morisson - ca. (17 + 27? km
NW of J. Lourenço)

Merostachys

Very abundant, robust Merostachys
is beautiful, tall,
leaves in forest.

It looks like some N. J.
collected in Bolivia, in 72
near Gaudin, (the guide
to going the right to the

west or also like some
I collected in 76 forest
in Peru, in Pinheiro's pegada
strong, but skin eaten
with very intensely. One
was N. 20m shrub (118)
with thick mallee.

Thick branches, starting for
few and after ± 50 photo-
type for more they in itself
rebranch. They do not
form a very clear, clear
"shield"

Shade of white with
band of hairs, reticulate
white, silky & woolly -
leaf sheath velvety white
pubescent with reticulate
shade very distinctive.

Plants not very tall
up to 8 m? \pm heavily
over top.

But complement very
interesting, stating that
and address. Like the
way of the foliage

big, large leaf waxy-
cut with large, short
hirsute leaf stalks -

Plot: S-W - 2019

FRA (2) - Sub. bag
bulky - 2 rhizomes, 3 culms
germinated.

(note near 'igapó', on road
back to São Lourenço)
Pteridophyte 2871

Small, delicate fern
near 'igapó'

Pteridophyte 2872

Strong, large plants, up to
1.66 m. - on road

July 18 2873
Rondônia, Road Mutum-Paraná to
Município São Lourenço, Km E of Santa
of Rio Madeira (at edge of near 'igapó')
Bambusa (Guadua) cobria!

Rhizome very long! monopodial?
with some roots separate
by pieces of rhizome from up
to 1.38, 1.74, 1.83 m!
very little thickened at
nodes. very superficial
just with a layer of
soil & dry leaves.

Very unusual structure, joining
very separated from each
other, not forming clumps
some culms + close as
30 cm but mostly very
far apart, wind path 1.74 m

to 1.83 m.
culms very strong and solid
all the way from base to
tip and ultimately branched
Internodes smooth nodes
with sharp little ridge
and 3 sharp but short
hook-like spines.

The top above same (+
1 m) start receiving
main branch which
has short internode, see
starts the culm with
3 leaf complement on
each or some spines (small)
leaf complement of + small
lanceolate rather narrow
blade. Less from main
culm on 1 or 2 small branches
lateral to the main. These

leaf complement large and
blade also large, with the
inflection on the distal like
but leaf deciduous on
main culm, and no
new growth seen.
The developing main branches
we found culm leaves
still attached. Very pretty
glabrous or so with short
erect blade ending (or forming
only by) a thin awn.

Blots B x W x color 400 Ekt.
of rhizome and few
by plant. (dark ending)
bulky material: 2 large
rhizome, pieces of culm
and broken complement.

FAA: leaves only -
growing on low tree forest
but dense, like cerrado
type. In some are mixed
with a *Mimosa* sp. (2874)
or tall campine

Mentzelia

2874

(same loc. as (Guadua))

Beautiful Mentzelia forming
very dense large clumps.

in low dense forest mixed
with bamboo, also mixed

with Men. a very rare Guadua

About 8 m tall & less than

1 cm in diam. - very

thin, fragil culms, very

smooth surface, with

small, single nodal ridge

apical; two upper ridge and

two glands on thick ridge

or hairs.

leaves deciduous

with glaucous above & caducous

Very few new culms seen

Many branches per node

and very thin, setose

branches, leaf co. forest

medium - small, blades

narrow, glabrous & little

appressed.

Rhizome typical, ± dense

perennial.

PRA leaves & buds (2)

Bulky - *inigo*, also

& black complement

Photo: B & W - & Ek. 400

2875

Roddillo of (tender leaves)
July R. Nepes, Rio Curicuriari, Anón
Am. ~~some~~ ^{some} ~~peach~~ ^{peach}, ~~hairs~~ ^{hairs} ~~ecampine~~ ^{ecampine} ~~lit.~~ ^{lit.} ~~will~~
Lara ~~firm~~
Phase - ~~hairs~~

late Roddillo of (tender leaves)
20, Sero do Lúca, rio Urubui,
between Cachoeira Tracema, ~~will~~
e Natal.
Epe Phase, June 6, 1968
for ~~Phase~~

Roraima: Rio Maricouira,
vicinity of Maico airstrip 2876
Indian trail from
A. Surucucui to Maico

7 Roddillo, tender leaves
1 Rio Urubui, Mandus-laraca
A. Rio Km 115 - growing in 2877
mosses on rock face
2 Phase, J. Roraima Aug - 75

at edge of moss, 1 p.
"igapo" 11

mm

Roddilla sp. (tender leaves)

R. Hays, Rio Curicuriari, Amazônia, perito e camponês set.
Prime
Phae. - Rana

Roddilla sp. (tender leaves)

Serra do Luba, rio Urubiti,
between Cachoeira Tracuna
e Natal.

Phae. - June 6, 1960
Perito

Roraima Rio Maricore,
vicinity of Maico airstrip,
Indian trail from
Surucucú to Maico

Roddilla, tender leaves

Rio Urubiti, Manaus-Laraca,
road km 115 - growing in
mosses on rock face

Phae. - J. Roraima

Rod. - 75

2875

July 30th

Am. Rio Arriba, between Manas-
laracarai and before bifurcation
(about 1/2 way from road), near Rio
de Hue.

Orquideae

Epiphyte, on trees at edge of river
forest on Rio Santa. Flowers
color like (lunaria)

Anonaceae

2876

Tree, ca 5 m with fruit in
fruit ~~at edge~~ river, can probably be
dated.

Lauraceae

2877

In flower, tree ca. 4 m. growing
at edge of river, periodically inundated
"igapo"

MM

Pteridophyte

2878

Epiphyte on trees at edge of river

(Boraginaceae?)

2879

Shrub, near edge of river, white flowers

Vinca

2880

Shrub small tree ca. 3 m. - with flowers -

Meliaceae

2881

Tree Shrub ca. 2 m. - in very close flowers, with perfume -

Piperaceae

2882

Epiphyte, on post at edge of river.

Acanthaceae

2883

Small plants with pale lilac flowers, growing in two firmes forest near river.

Leguminosae.

2884

Tree about 6 m, cauliflora flower bright red with some petals till use young, turning red as the rest when mature? some with fruit?

Myristicaceae 2885
Tournefortia coriacea Aublet
~~Small tree~~ ca. 3 m. in flower

~~Melastomaceae~~ *Flacourtiaceae* 2886
Casuaria sp.
Shrub. ca. 1.5-2 m. with
very young flower buds

~~Melastomaceae~~ *Sepioidaceae* 2887
tree ca 5 m., flowers ivory
white

Legum. Mimosa 2888
Tree, ca. 6 m. flowers white
near river to river

Apocynaceae 2889
Tree ca. 6 m. flowers
white with perfume, at
edge of river

Legum. Mimosa 2890
Tree ca 7 m. flowers cream
white

Cyperaceae 2891
Grass between rock ~~at~~
edge of river, near to
river

Leguminosae. Androp. 2892

Tree ca. 6m with spike
like inflorescence

Sapindaceae 2893

Tree ca. 7m with white
flowers. (fruits 3 winged)

Aug. 1st. 2894

Am. Rio Urubí, between Manaus
- Caracarái Road and Serra da
Lua. ~~near~~ Near Serra da Lua
Artibeus litidorsus.

Beautiful, delightful birds
Abundant in dense forest
from near road to Tucuma
Down river is also much abundant
seen the dominant plant under the
canopies on both sides of river and

on the gentle slopes up to the
top of plateau where it's scarce
or absent. Plants mostly small
looking like a young popal tree,
fr. ca. 80cm to 2m + but
here & there some taller and
in some spots a smaller shrub
with vine like climbing 3-6m high
and culms thicker ^{about 1/2 cm} ~~than~~ ^{or} a little more, but less than 1cm.
Otherwise stem thread like and
internodes, culm leaf & look like
the whole plant sharp apices like
Selenia. culm leaf or leaf tip ^{stiff}
a ~~stiff~~ sticking to clothes or skin -
Culm leaf all apices ("licks" also)
sheath with a thick, cork like
collar - pubescent on the back
near the base. Inner edge of sheath with
a crown of stiff, curly hairs, white
and thick in groups looking like
a ring of triangle in a line
thru all the overlapping edge of the
sheath with long, appressed hairs
Oval retic long & copper color.
Culm leaf blade erect, long &
about 2/3 the length of sheath

sessile, small, narrower than
the top of sheath. Very caducous
breaking a falling very soon.
Branch complement of several
snobs very thin, coming from
the sides of ^{the} centers. Terminate
The base of main branch thick but
then not very thick (like *Bohne*)
A leaf complement 2 blades in
itself small, blades narrow lanceolate
Sclerote, fern like ~~stages~~
Branches (22) robust on the distal
part with 2 leaf complement each,
or 10.

FRA: leaves (flowers late on a 7 spot)

Photo: cold x B x W.

bulky material: refuse,
fresh cop. & garments.

Aug. 2nd.

DE, IL, MO, NY, WIS

2895

~~The~~ Ben - Rio P. Muriel, between
Manom. ^{Taracari} ~~the Salinas road and~~
Sere to Tula.

Rorippa Lymanii - 7

going on with a rail up
of liver, on the dotted back -
going on with a rail up

Pasadena

2896

at edge of rocky cliff with -

Acute case

2897

Small & delicate at edge of river,
high river bank, rocky, steep -
Flowers white with small spots,
very pale lilac. FAA. L. & flowers
Photos: after Riddick, color

Panama

2898

Trailing Panama, with inflorescence
short. (similar with flower) 2
m

Panama

2899

Another 1. taller, at skin. (2m)

Cyperaceae

2898
2900

On rocky bank, about 60cm
tall, wide leaves

Cyperaceae

2901

Thin leaves, inf. raceme
like.

Pteridophyte

2902

Common on rocky face of
cliff along river, leaves
almost transparent. 1m high

Heterophyte

2903

Small fern. on rocks and
along river.

Rubiaceae

2904

Small tree, about 6m,
flowers white. near edge
of river.

Telephinella

2905

Common on rocky ~~face of~~
cliff along river - mixed
with *Ruellia*, ferns etc.

Acanthaceae

2906

Epiphyte ^{near} on cliff slope
river, Flower dark pink

Acanthaceae

2907

Small, short caudex
Flower pink-lilac

Gynandropsis

2908

Small plants growing on road
at edge of river -
looks \neq from the others by
collected some day this year
no more than 10 cm ~~high~~
less - not

Ruellia nana

2909

US, K, MO, NY, LE, P, WIS

Abundant, growing on rocky
face of cliff at edge of
river, between muds, ferns
Telephinella. Abundantly flowering
Plant very small, some
just 3 cm or less, some
trailing - the ~~most~~ biggest

3 Bamboo

2910

Arthrostylidium sp! Det. 9/10/78

growing at edge of woods,
very common here & there
is airtight ~~clump~~ ^{the} ~~from~~
wood to ~~the~~ ^{this area} (about 1/2 m. by
100 ft). Climbing ~~scrambles~~
from discrete clump, (not
big) ~~not~~ and not erect
but climbing and leafy &
climbing over ~~spit~~.

bulb smooth, not opening
leaves persistent all
over the plant with blade
slightly reddest to a very
small, erect joint or throat.
Sheath smooth, not hairy.

No new shoot seen

but ~~not~~ about 2 m. or
so about 100 ft. or

Waves part 1 shows, then
3 shows, central point
(not much), ~~at~~ in some
places 5 shows -

~~Decid.~~ Leaf complement
large, many leaves

Stems long, much, base
with well marked petiole
and few or small ones
else.

by threads of color
short -

Rhizome with short
nodes, (repl. type) -

Black. ~~green~~
Culm with small hole
thick wall, in nodes
1/2, upper fronds and
upper part rot.

Note: some are white & cold -

FPA: 2 leaf, 2 seeds -

Gully in: ridge, col
to be completed.

Aug. 3

2911

Bambusa?

(B) capitata complex (det. 29)

the other? , hard to say
what it is - looks a bit
flame like the other
but in detail all are
it.

Small clump growing at
edge of river (which is
periodically inundate) not
growing far inside
though the same for the
other Bambusa (2910) -
thin dip Bambusa, from
borel curved and very
up over the trees large
clump smooth long petioles
Smooth smooth, blade
long reflexed, narrow
pointed, in some places
when very dry erect,
or then deciduous -
long, silky oral setae -
clump intermediate smooth
not very long, thick walls

and small lumen when
mature a dry - jagged
solid but brittle with
fibre (look like small hole)
of the leaf, strong -

One node with upper
ridge marked. Branch
complete, mostly 1
branch, in some places
that branch gives one
or two on the side.

Branch complete high position
between ridges.

Leaf complete, large of
several leaves, blade
long, & narrow, not
petioled & long silky oral
setae -

New shoot pointed, 2 -

Photo: B & W - color

FAD: leaf, piece of culm &
nodes (2 v.)

rhizome, culm sections, sweet
complete.

found late about 2 hours
down the river, always
growing at edge of river
Plant not very tall ca. 6 ft
(*Auloneura*?)

Aug. 4 282912
Panama, Rio Arriba, ca. 3 hours
from Managua - ~~the~~ Carretera
~~the~~ river road. A
gentianaceae

Saprophyte, near edge of river,
white 5-merous flowers.

3 *Acletolepis* 2913

Uniflorous, ^{vine} (tapering), exilious green
in flower? near edge of river

Pteridophyte 2914

Epiphyte on tree near edge
of river.

US, WIS

Agave americana 2915

growing at edge of river,
(small type of plant,
size up to 70 cm)

F.A.A.: leaves.

Onagraceae 2916

Epiphyte, flowers green white

Lentibulariaceae 2917
Utricularia

Saprophyte, no leaves, flowers
iridescent. (1 specimen with 2 plants.)

Peperomia ^{minorskeae} ~~minorskeae~~ 2918

Tree up to 10 m, flowers
white, common along river

Viola ~~hybridaceae~~ *hybridaceae* 2919
Viola elongata (Bth) Wats.

Small tree, ca 6 m. narrow
leaves

Peperomia 2920

Ornithoglossum?

Tree, ca 12 m. Flowers pink
like.

Apocynaceae

2921

Small tree, about 8m with
orange yellow fruit, at
edge of river

Mistecaceae

2922

Virola cataphylla Warb.

Shade tree at edge of forest
about 6m. (wide leaves)

Combretaceae

2923

Clips on tree at edge of river
very young flower buds, few
open ~~very~~ flowers (very
small)

Mistecaceae

2924

Virola elongata (Bth) Wats.

Small tree at edge of river

Leguminosae *Cedrela*

2925

C. peruviana

Tree ca. 12-15m at edge
of river. Flowers white.

Aug 5

2926

Am, Rio Nambui, Setren Manam
& Baracarai Road and Trocena
Water Falls. (about 2 1/2 h by foot?)

(Tatara?) n. sp. - (pencil)

One clump at edge of river
with some shoots. Koroia
and also several new shoots
between shoots. Very young
very young in places on
the lower half of canopy, cover
by appeared from first

Indians. When shoots old
they most of them fall
below stand and flexible
not erect but curved on the
ground and ending over
trees. When young culm fills
in center with pith, well
one thick. When old the
culm is hollow in center.
Blade of culm leaf long
and reflexed, late dentation
but in new shoot very thin

more time a few are erect,
and then later, reflexed - long
and petiole, silky and called vire
older.

Mostly from above 1/3 from
ground start growing, one
branch per node. Internodes
rather short and most all
of them have some
shoots give only branch
complement of 1, Way up
at the end of shoot
give two small shoots only
with leaf complement.
Flora: head of pseudopikelet
apparently similar on nodes of
a shoot. Head of pseudopikelet
grows for more than a node
in cores. Spike with more
hairs only on the edges of lower
or to. (The other side from Trans-
-eye look up at all cores by one
hairs. a short complement on the
complex.

FRA: flower, leaf & buds (3V)
of new piece of culm with
buds - (no photo here, only 2 small
photos)

Malpigiaceae

2927

Climber over tree at edge of river
with fruit only.

Sapotaceae

2928

Tree, ca. 7 m along river.
in fruit only.

Leguminosae Mimoidae 2929

Tree about 7-10 m. along
river, common

15, K, WIS
Lycium-like sp.

2930

Abundant on bank of river
not ~~sure~~ sure if fig tree, looks
intermediate.
FRA: whole in flower.

Legum. Cercopithecidae
Swartzia?

2931

Tree about 12 m. does
with flowers, yellow and
with perfume.

Mimosaceae

2932

Virola elongata (BHL) Wats. ~~aff. m.~~

Tree about 5 m.

Dioscoreaceae

2933

Climbing over tree at edge
of river.

Loganiaceae
~~Stychnos~~ Stychnos

2934

Li Woody cipo over tree at
edge of river

Laportaceae

2935

Tree along river about 6-7
m

Chrysobolaceae

2936

Tree along river, ca. 10m,
flowers white

Anonaceae

2937

Tree about 8m along
river, big flowers pale yellow

Brigosolenaceae

2938

Tree ca. 10-12m with very small
flower & red fruit.

Guttiferae

2939

Tree about 6m with young
big buds.

Aug. 6.

2940

Am. Rio Mucuri ~~to the~~
~~near the~~ ~~road~~ ~~is~~
~~about 400m beyond yesterday~~
~~(115m from camp)~~

Moraceae

Coronaria?

Tree at edge of river
very small pinky flowers -

between the Traceme and nearby
igrapa.

Apocynaceae

2941

Small tree at edge of river
white, perfumed flowers
very delicate, good perfume.

Orquidaceae

2942

Small epiphyte with yellow
flowers

Orquidaceae

2943

Epiphyte, long leaves hanging
from branches of tree. Flowers
yellow with brown spots.

Cyrtosperma ^{sc}
Liana -

2944

Small tree ca 8 m at edge
of water. Small ivory flowers

Lepurum -
Dioecious?

2945

Liana of flowers like

Lepurum. Mimosaceae.

2946

Lupa

Tree ca 6 m flowers white

Euphorbiaceae
Perse?

2947

Shrub ca. 1.5 m. Flowers
ivory white

Andropogonaceae

2948

Creeping over trees near concrete.

Burseraceae

2949

Small tree about 3-4 m. Small
ivory flowers

~~Utriculariaceae~~

2950

Nymphaeaceae

N. cabomba

floating on water near water
fall, abundant, yellow
flowers.

2951

Xyridaceae

2951

small plant on rocks by the
water fall.

Podostemaceae

2952

Renetic by the water fall, leaves
attached to rocks, floating in
below water.

Scott Mori

Elaeocarpaceae

53

Ternstroemiaceae (Theaceae)

, at

Myrtaceae

Lecythidaceae

2954

the
~~tree~~

2955

Epiphyte on tree.

BAHIA, BRAZIL

Mun. de Mucugé, Serra do Sincorá, 29 km S of Andaraí on road Andaraí-Mucugé. Elev. 1050 m. Common in plateau, near top of mountain. Forming dense, small clumps in sandy soil between rocks. Flowers light violet in color, stamens and stigmas bright yellow.

9 May 1976

Cleofé E. Calderón, Talmón S. Santos, and Lyselson B. de Oliveira

2415

Collected under the auspices of the Smithsonian Institution, National Geographic Society, and Centro de Pesquisas do Cacau (CEPLAC)

~~Utriculariaceae~~ 2950

Nymphaeaceae

Najas

Flowering on water near water
fall, abundant, yellow
flowers.

2951

Xyridaceae

2951

Small plant on rocks by the
water fall.

Podostemaceae

2952

Aquatic, by the water fall, leaves
attached to rocks, floating ~~in~~
below water.

Melastomataceae

2953

Miconia pubipetala

Small tree, about 4 m, at
edge of water.

Ericaceae

2954

Tomina cf. fluvialis Aubl.

Aquatic, on rocks by the
water fall. (~~in water~~)

Loranthaceae

2955

Epiphyte on tree.

Ougniaceae

2956

Epiphyte, beautiful green
flowers with brown spots.

Convolvulaceae

2957

Growing on wet rocks by the
water fall (very small plant).

Brassicaceae

2958

Growing on rocks at edge of
water fall

Convolvulaceae

2959

Growing on wet rocks
at edge of water fall.

Myrsinaceae

2960

Shrub of 3 m high at
edge of water fall.

Legumin. Corolliniferae
Gutierrezia.

2961

Tree, about 7 m. high. flowers
white with perfume
n.v. - "sassafras"

Melastomaceae

2962

Aristia viscosa

At edge of 'igapó' by marsh.
The water full. Flowers white
with stems lilac.

Orquidaceae

2963

Epiphyte, small, with yellow
flowers.

Bombacaceae

2964

Small tree at edge of

Lonicera

2965

tree at edge of water. Flowers
pale yellow perfumed.

Dec. 7.

2966

Am. Rio Urubici, between Serra to Lusa
& eastwards to Tracema water fall

Abolito (not far from camp - right
side. Small stone wall with
water running over

Arthrurilidium sp.
seedlings.

Very abundant, forming
bush on sand on rocky
slope. Adult plants flowering
on the spots. (water holes) Most of
them rather young, with cotyledons still
attached. Few with 2 shoots joined.

2968

Small Tree at edge of water
with very young flower buds

2967

Lorantaceae

Epiphyte on tree over water
Flower like pink

2969

Anacard

On rocky, moist slope by
the river - (Mimulus)

Arthonoglossum

2970

At one spot of the forest at
edge of river with 2-3 clumps
of mature plants, some
with in flower, but a there
hard to find fresh in flower.
But many, many seedling
on the forest floor. Soil rocky, white
between rocks on a beautiful
rock wall with water trickling
along it.

Plant mature climbing a
large tree, probably
not more than 6-7 m
tall. Mature culms
~~are~~ less than 1 cm in diam.
Some short stems by
a lot. Spikelets small but hard to
see any complete a young.

FRA: flowers. no photos

It looks the same we collected
early up stream in the first
camp - and almost everywhere

Leguminosae

2971

Small tree with beautiful pink flowers on the stem.

Euphorbia

2972

laraipe

Tree ca. 6 m at edge of river. Flowers with white petals & many stamens. Petals fall very ~~early~~ early.

Melastomataceae

2973

Miconia rugosa
about 6 dm.

Tree with big leaves and at top as spikes of tall pink flowers with violet stamens.

Banana

2974

Growing on high river bank. Small leaves type - (2 or 3) "terre firme" forest

Melastomataceae

2975

Miconia marginata

Shrub ca. 1 m on forest at edge of river. "terre firme forest"

Cyperaceae

(3)

2976

Growing in 1st forest, "terre firme" along river. Dominant in forest is a sp. of *Arthrostylidium*. Forming thick clumps.

Arthrostylidium

Aug 8

2977

Rio Urubiti. Set near fence to
Rio x Tracena Water Fall. iparapi
tributary with water fall.

Pteridophyte

~~Below~~ Big fern frond about
type, about 2 m high. in
rain forest at edge of ipa-
rapí tributary of river.

Pteridophyte Selaginella 2978

Selaginella

Common in wet forest along
stream tributary of main
river (tipo Selaginella).

Melastomataceae

2979

~~Plants~~ Plants with red flowers
in rain forest along streams

Pteridophyte

2980

In wet, dark place of
forest along iparapi, tributary
of main river

Pilea goellii

2981

In wet forest along iparapi
tributary of main river, slope
with rocks and sandy
soil. Growing with ferns and
other plants in flower.

Pteridophyte

2982

Epiphyte, growing on wet bank
of a tree trunk. In
forest along iparapi.

Anacard

2983

growing at edge of riparian
territory of river, not
terrestrial (unclear)

US, K, WIS

Rastrellia esenbeckii

2984

(Humb.) C. & S.

growing on rocks at edge
of river, near riparian
territory of river, not
terrestrial.

FAA - flower & leaves

3:1 - " " "

~~Banana~~

~~2985~~

~~about 1000 ft. or 11,000 ft.
low~~

Xingibaceae

2986

(same loc. & date & obs. than
Anacard ^{Malay} collected in
Jociparano, (see no 2788)

Growing in terra firme ^{forest}
near Jociparano, Flowers red -

Bambusa

2985

collected by Joe Smith

Amazon River (?) ^{Malay} about 1 hour (?) above Manaus

Medium size bamboo, ca. 3-
4 m, ^{very} near river, to
culm with thick walls
about 0.8-0.9 cm diameters
culm leaf ~~with~~ persistent
persisting late in place.
culm leaf blade very small
All plants flowering -
ebb & al - Aug. 18, 79

Um fazendeiro tem uma
vaca e a mãe do fazen-
deiro é também o pai
da vaca.

Aug. 30.

KC 78-66

Bandeira (Guaianá)
Arr. Rio Negro

Igarapé do Jaraguá entre Manaus e
Arquipélago das Anavilhanas

Young near the edge of river in
small stems, leafy leafy
on refert. ca. 5-6 m, lower
surface of leaves with thick
wax, only small stems
inside. Wood region with
white bands above & below
lower ridge. Very young
bamboo. In lower part of
culm strong & curved but
short spines develop at nodes
in symmetrical pattern above
middle when branches start
developing the secondary growth
shows a unilateral behavior
only one side of main axis
produces several axes, the
other side only 1 spine.
No new shoots seen, but

fls. culm sheath found on the
ground: blade persistent & short
triangular.
Blade of young leaves
medium small, hirsute.

K 79-89

Sept. 3,

Am. Rio Negro, right bank,
2 hours below Tapumera.
"Bitis Temelani,
on granitic outcrops ~~at~~
(Olyra) longifolia.

growing in the water at edge
of river, up to 1.40. First
of flowers, similar to
the one collected in the
Musi.

FRA: ls. & inflorescence

K 79-127. same loc. as before
and next day Sept. 4

Panicum sp.
growing in the bush with
bristlantaceae and Cyperaceae

Sept. 4, 1979

K-79-135

Bambusa

Hum., Rio Negro, *ipapí* Dava
near Santa Isabel (Tapurucure)

Young in *ipapí* forest
slope *ipapí*. Small climber
completely in vine. Culm
leaving on repetition, up
to 15 cm \pm . Heavy walls
with small *humeri* in
center of internode. Furrow
enough, but *humeri*
rather short. Culm diam
up to 1.3 cm \pm culm short
rather persistent or last
persistent, black ^{en} *humeri*, only
a small Δ , set.

Few spines on one side
of fresh complement.
Internode \pm thick \approx 4-6 \pm .

Ploeris, \pm top *pentasph.*
lets, but with quite
differences in length, some short
& other much longer.
Not many \pm *pentasph.*

found. Moreover some
new shoot found
(looks like the of that
several collected near
Manaus)

Bulky material: internode & fresh
complement.

FAA: *h* & *pentasph.*

We saw this *Bambusa* also growing
& in flower, but, next day
in the Rio *Camaburi*, above
Santa Isabel.

79-136

Sept 5

Rm, Rio Negro, mouth of
rio Cauburi, above Santa
Isabel (Tapurucanare).
(ca 110 km above Tap.) on map.

Pteris tympodioides

Most common on terra
firme forest, near edge
of rio Negro. Mostly all
plants flowering, found
in abundance with a few
of *Pteris* (most in fl.)

FAA: 11 x 11 ft.

79-140

Sept 5

Rio Negro, mouth of rio
Cauburi, above Santa Isabel
(Tapurucanare)

Johnstonia paniculata

On terra firme forest
near edge of rio Negro.

79-159

Cratogeomys sp.

Same loc. ↑
(beach were with spent the
night).

Laheine to Butu
no ipnape' Riraratuara
" " Riraiatuara
affluents to Curicunari

79-177

7 Sept.

Bamboo (Juncus) (?)

Rio Negro, near mouth of Rio
Curicunari.

Growing near the edge of river,
on steep bank. Growing
rather tall clumps. Culms
arching over repeatedly up to
20 dm or more, no spine
internodes smooth, with
thick walls, color in inter-
nodes rather short.
Leaf thick, smooth
with short, narrow
A blade.

FAA loc.

Bulky: stems like a grass?

79-189 ^{US, K, MD, NY, P, WIS, LE}

Sept. 8, 78

Proville (see section?)

Am (Rio Negro) *Ipomoea Piracaulis*
ra, tributary of the lower
Cunimuray; Lactaria to
Butte? ~~the~~

Abundant on rocks by the
water fall - growing between
rocks & round *Utricularia*
In some places it is small
& short as usual, but
in higher rocks is somewhat
and trailing over rocks for
about 20 cm or more.
Very velvety, thin leaves.
Plants all in flower. Probably
the trailing plant on + often
noted place? Beautiful!
Forming carpets on large rocks
seen also in some granite
walls along the *ipomoea*.
Also growing on round about the
rocks!
FRA: only 1 not over.

79-190

Sept. 8-

Am. ~~the~~ Rio Cunimuray

Arthrotylidiaceae

Growing in low forest on
fuzzy soil near edge of
rivers!

Climbing scandent, abundant
in the forest over trees &
shrubs. Bark very velvety
thin, probably 60-80 cm ±
Very asperous. Bark leaf
with erect & black.
Foliage velvety, black
narrow, short lanceolate
look like the one collected
in the stream -

FRA: Lr.

Bulky material: pieces of wood.
garment?

79-191

Panama

Sept. 8

Am. border via Curicunary

Abundant in low forest along
river, on sandy soil. (if 10%)
near the edge, many
plants seen but just one
patch with flowers.

FRA: 20. a. an. flower.

K. 79-209

Sept. 9

R. Rio Maria, ca. 30 km
above mouth - near village
of Macoseta

Rhynchospora

Clustering bamboo growing in
forest on high banks along
river, with sandy soil of
banks thin, less than 1 m
but strong & flexible over
veg. & trees \pm 6 m. Forging
 \pm large, dense clump about
1 m high. Internodes &
culm ~~the~~ leaves very smooth
Internodes with thick nodes &
small hollow center.

Culm leaves very smooth
triangular with no external
demarcation of blade. or
from inside seen flat. Blade
ending in a long throat
like tip.

Leaves rather large - (seen later
this is in flower!)
Sheath rather persistent \rightarrow

~~Thellima~~

Many ~~stems~~ main axis of
bushy clump plant in the
stage of 2nd development
(fresh & hot) -

In some cases the main
axis of the b.c. remains as
a thick bud, and developing
beautiful vine-like branches
(at first ~~thick~~ doesn't seem
to be if ~~Arundinacea~~).

FAA: buds (1 & 2 vials)
Bulky: leaves & parts of culms
no photo

K78-210

Sept. 9

Am, Rio Mowik, ca. 30 km
above mouth, near ~~stake~~
Lacholira, above village of
Macobeto

Arundinacea

Another beautiful vine-like
bush, # sp. of the same
genus collected early in the
day and not far from
the other place. Abundant
on high river banks in very
wet, forest slope river
banks type, ~~probably~~
(or not) ~~black~~ by the high tide
of river on the rainy season
tropics and tall *Arundinacea*.
+ 12 m or more climbing &
hanging. Very "vase" type
very ~~perennial~~ all over, stems
& culms ~~break~~, it's like
"tiniro" (teline)
culm leaves rather persistent
(the same for the other sp.)

on late seedlings when branches
develop. Culm leaf appears
as long triangular with
marked venation of smooth
blade (is this the most common
one in the genus Ar.?) and
oval ribbed; one side of
leaf overlapping, especially near
base. Culm with ^{little dark tomentum}
like expansion. Culm leaf
with a collared like sheath
(the) near base,
culm up to 1 cm or little less
strong & flexible; with little
holes in joints or none in
some parts. It's seen to
produce more branches x b.c.
than the other sp.
Culm nodes filled with pith in
some parts of plant.
We saw this bamboo in reedy
places along the river, mostly
on the side opposite the village
(right bank of river).
It's a piece of culm & bark
bulky material: paraka 2

pieces of culm
and photo

79-211

Sept. 9.

Am. Rio Marie, ca. 35 km
above mouth of river.
(ifonage near cascade (or right
settle))

(Olyce) longifolia type

Large clumps growing in the
water of rapids, immerse
part over 1 m. x ± 2.5
m. aerial, arctic a little
broader, from several nodes
below top and flowering
profusely from third node
up. (several series per node
node -

top leaves type of *O. longifolia*
at top node.

FAA: br. a inflores

79-222

Sept. 10

R. Rio Marie, ca. 40 km
above mouth of river
(some km above cascade
near village) on right side
of river (opposite to village side)

Arctostaphylos sp.
(in flower)

Same sp. as the first Arct.
collected in this river
Beautiful, hanging from
trees at the edge of river
but dense in fibrous
ground (possibly isolated)
This is 'spade' type of plant
All plants in one spot
flowering but not seen in
other places. Infl. \pm Arctost.
type of apical node? but
apical 1-flower with very
long, thread-like seagulls
extending, like *Arctostaphylos*
The anthers \pm like *Arctostaphylos*
the, broadly compressed.

large, with 2? plumes -
shorts at base, very short
(The whole infl. not look-
like a true spike, and
extension of main axis
and uppermost infl.
very well developed.

Collected a lot of material
and for herbarium &
lots for seeds.
(in vial as 209)

FAR: 2 vials: br. & infl.
long. 1 v. infl.
3:1 - 1 v. infl.
Bulky m.: culm pieces only
Photo: b & w. a color
Sketches 64 -

79-236

Sept 11, 78

Arthrocladus

Am. Rio Tea, 40 Km above mouth
"Bacuri" village -

Common at edge of river, in
less open forest, some
plants growing in the water.
Small plants, probably a
rather young population? apt
flowering when few years ago?
bluish green, rising up to
3-4 m \pm blades rather
large -

Low type of 'ijopi', in
some places changing
to cane pine clumps
but then no bamboo seen?

79-243

Sept. 12

Bambusa

(-)

Some loc. of plants.

(Bambusa in flower - collected in the morning)

(One clump growing at edge of river in open forest, base of plant partially immersed. Plant up to 16 m +.

Bulb smooth, no ribs, and no spines. In some nodes (rare) one of the lateral buds pointed looking like a thorn.

Both complement typically Bambusa style. Main axis strongly dominant with thickened, as an oval bulb, upended and divergent from cylinder in a wide angle, some time up to 90° or 50°. Secondary axis coming at level of the base of 1° one, and also growing & spreading out

in sharp angle and away
from parent are
culm with very thick walls
and small lumen.
Lining over trees. Flowering
prolonged, possibly all
and of leaf completion.
No new shoots found

no photo

FAA: to a some point.
no buds?
Bulky: culm pieces & branch
with glaucous.

K. 78-252

12 Sept.
(afternoon)

Olyra? sp.

Am

Am, Rio Negro, Ilha
Tamaritanga, farmstead
near Santa Isabel to Rio
Negro (Tapuruquara)

Growing in beautiful tall
forest, here, primitive? apparently
eventually periodically inundated.
Tall ovoid culms,
abundant, giving an
Panicum-like character here.
Strong rhizome with
and alternating divergent
to one side & the other
(as the one I collected from
O. Stanley).

Simple of several fls. per
terminal node and
some (1 or 2?) below
long an ending in spike
with 2 spikelets

K. 78-251

Sept 12

Same as before

~~Banksia~~

with very long, and more than
10 ft. of spikes.

Artemisia seems glabrous (very)
leaving 8 or 10 small nodes
covering the whole axis below.

K. 78-251

Sept. 12

Same loc.

Banksia sp.?

(long fls., tip to complement.)

Beautiful climbing Sambar,
up to probably over 12 or 15
m., leaning and climbing
over trees. Culms straight
with thick walls, with
rather short internodes.
Leaf with 1 and
deciduous fls.

Leaf internodes smooth
Typical Southern Sambar
complement. no spines

seen, Big (immature)
leaf complement with
long & wide leaf fls.
Abundant in tall forest,
transition? for ipos in
large island.

No photo -

FRA: 15- only

bulky material: culm pieces

x parraquos -

May 15

2492

Reserva Dube, near Manaus,
Pariana

growing scattered in rain forest
few in flower; the inflorescence
poor produced in a uprooted
shoot.

Pariana

2493

growing in ^{humid} forest, ^{poor} flowers of
~~humid~~ rain forest. Not abundant.
Fl and few in flower.

(This two ~~specimens~~ collected with
Osmarino)

May 22.

2494

Araguaia, Reserva Dube, near
Manaus.

Pithecia nymphaea.

growing ^{abundantly} near the ~~river~~ not too
far from the stream.

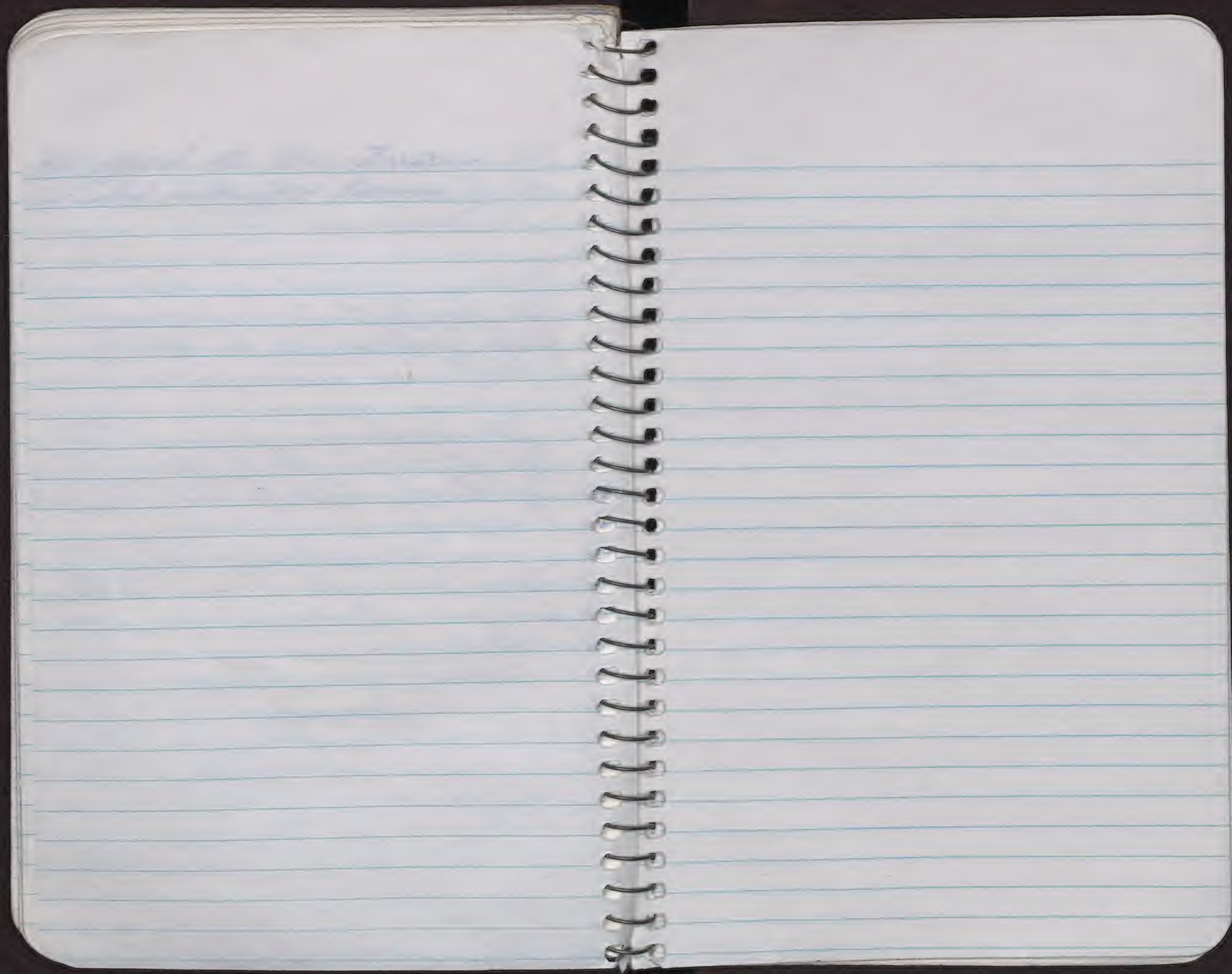
collected with Jose' Ramos.

2495

Lechnanthus?

growing in rain forest, near

the road to the stream.
(collected with Joe's names)



- 2492 - *Piriana* (w. *Osmanina*)
2493 *Piriana* (w. II)
2494 *Pirine symphicta* w. *pre'Ramus*
2495 *Tachanthus*?

Bulky material

2519 1I, 5G, -	2I, 4G, -
"2706" several pieces, 1A	several pieces, 3R
2733 1I, 3G, -	1I, 3G, -
2754 2I, 4G, 1R	2I, 3G, -
2755 2I, 6G, 1R	2I, 5G, 1R
2756 1I, 3G, 1R	1I, 2G, 1R
2771 1I, 2G, -	1I, 2G, -
2780, 3G, -	1I, 3G, -
2782 1I, 3G, -	1I, 3G, -
2783 3I, 4G, 1R	3I, 5G, 1R
2784 no bulky	
2813 1I, 3G, -	2I, 3G, -
2818 2I, 4G, -	2I, 4G, -
2829 1I, 4G, 1R	1I, 3G, 1R
2833 2I, 3G, 4S, 1R	3I, 3G, 2S, 1R
2846 1I, 4G, 1R,	1I, 3G, 2R
2867 2I, -, 1R	2I, -, 1R
2870 1I, 4G, 1R	2I, 4G, 1R
2873 2I, 2G, 1R	2I, 2G, 1R
2874 2I, 3G, 1R	2I, 2G, 1R
2894 2I, 4G, 1R	2I, 4G, 1R
2910 2I, 5G, 1R	2I, 5G, 2R ^{chis}
2911 2I, 5G, 2R	2I, 4G, 1R
2926 -, 3G, -	-, 4G, -
2966 & 2970 no bulky	
2985 HE - 1R, 1R	2I - 1R

K79-66 IN, 3I, MS 2I, 2G, —

- 89 IN

127 IN

135 IN, 2I, 2G, — MS 2I, 2G, —

136

140

159

177, 3G,

189

? 190

191

209 2I, 5G, 1R 2I, 5G, 1R

211

222 1I, — — 1I, — —

236 2I, 2G, 1R 3I, 2G, 1R

243 4I, 7G, — MS 3I, 7G, —

251 3I, 4G, ~~MS~~ — 2I, 4G, ~~MS~~ —

252

210 2I, 5G, — 3I, 5G, 1R

8

2807 IN (4)

MS (4)

2834 IN (4)

MS (11)

2808 IN (4)

MS (4)

2835 IN (6)

MS (6)

2809 IN (5)

MS (5)

2836 IN (7)

MS (5)

2810 IN (6)

MS (6)

2837 IN (5)

MS (5)

2811 IN (5)

MS (5)

2838 IN (5)

MS (6)

2812 IN (4)

MS (6)

2839 IN (5)

MS (10)

2813 IN (4) ^{ext.}

MS (6)

2840 IN (5)

MS (5)

2814 IN (4)

MS (4)

2841 IN (4)

MS (6)

2815 IN (2)

MS (2)

2842 IN (2)

MS (2)

2816 IN (2)

MS (2)

2843 IN (2)

MS (2)

2817 IN (3)

MS (4)

2844 IN (3)

MS (3)

2818 IN (4) ^{ext.}

MS (5)

2845 IN (1)

MS —

2819 IN (3)

MS (3)

2846 IN (5) ^{ext.}

MS (8)

2820 IN (4)

MS (6)

2847 IN (1)

MS —

2821 IN (3)

MS (3)

2848 IN (4)

MS (5)

2822 IN (5)

MS (5)

2849 IN (7)

MS (6)

2823 IN (3)

MS (3)

2850 IN (3)

MS (3)

2824 IN (3)

MS (4)

2851 IN (2)

MS (2)

2825 IN (4)

MS (4)

2852 IN (1)

MS (1)

2826 IN (9)

MS (4)

2853 IN (2)

MS (3)

2827 IN (2)

MS (2)

2854 IN (4)

MS (4)

2828 IN (3)

MS (4)

2855 IN (2)

MS (2)

2829 IN (4) ^{ext.}

MS (5+)

2856 IN (1)

MS ? ^{ext. lost?}

2830 IN (5)

MS (2)

2857 IN (4)

MS (12)

2831 IN (4)

MS (10)

2858 IN (4)

MS (5)

2832 IN (4)

MS (3)

2859 IN (1)

MS (1)

2833 IN (5) ^{ext.}

MS (7+)

2860 IN (1)

MS (1)

2861 IN ⑥	MS ⑥	2888 IN ②	MS ②	2915 IN ①	MS ②	2942 IN ①	MS ①
2862 IN ①	MS ①	2889 IN ③	MS ⑤	2916 IN ①	MS -	2943 IN ①	MS ①
2863 IN ②	MS ②	2890 IN ④	MS ⑥	2917 IN ①	MS -	2944 IN ②	MS ⑤
2864 IN ⑤	MS ⑤	2891 IN ③	MS ④	2918 IN ④	MS ⑤	2945 IN ④	MS ⑤
2865 IN ⑤	MS ⑤	2892 IN ③	MS ④	2919 IN ④	MS ⑤	2946 IN ④	MS ⑥
2866 IN ⑤ ^{int.}	MS ⑤	2893 IN ③	MS ⑤	2920 IN ⑤	MS ⑤	2947 IN ④	MS ⑥
2867 IN ⑤ ^{int.}	MS ⑧	2894 IN ⑤ ^{int.}	MS ⑤	2921 IN ⑤	MS ⑤	2948 IN ③	MS ③
2868 IN ③	MS ⑤	2895 IN ⑥	MS ⑥	2922 IN ⑥	MS ⑥	2949 IN ⑤	MS ⑤
2869 IN ①	MS -	2896 IN ①	MS ①	2923 IN ③	MS ④	2950 IN ⑤	MS ⑥
2870 IN ⑤	MS ⑥ ⁺	2897 IN ④	MS ⑪	2924 IN ⑤	MS ⑤	2951 IN ④	MS ④
2871 IN ②	MS ③	2898 IN ①	MS -	2925 IN ③	MS ③	2952 IN ⑤	MS ⑦
2872 IN ⑦	MS ⑦	2899 IN ①	MS ①	2926 IN ⑤ ^{int.}	MS ⑧ ⁺	2953 IN ⑤	MS ⑤
2873 IN ⑤ ^{int.}	MS ⑦ ⁺	2900 IN ②	MS ③	2927 IN ⑤	MS ⑥	2954 IN ⑤	MS ⑥
2874 IN ⑤ ^{int.}	MS ⑦ ⁺	2901 IN ③	MS ④	2928 IN ④	MS ⑤	2955 IN ①	MS ②
2875 IN ①	MS -	2902 IN ④	MS ④	2929 IN ⑤	MS ⑥	2956 IN ①	MS -
2876 IN ③	MS ④	2903 IN ③	MS ③	2930 IN ④	MS ④	2957 IN ⑤	MS ⑤
2877 IN ④	MS ⑤	2904 IN ⑥	MS ⑤	2931 IN ④	MS ⑤	2958 IN ②	MS ①
2878 IN ③	MS ③	2905 IN ⑤	MS ⑤	2932 IN ④	MS ④	2959 IN ⑤	MS ⑤
2879 IN ①	MS ①	2906 IN ④	MS ④	2933 IN ⑤	MS ⑥	2960 IN ②	MS ②
2880 IN ②	MS ②	2907 IN ②	MS ③	2934 IN ③	MS ④	2961 IN ④	MS ⑤
2881 IN ①	MS ①	2908 IN ②	MS ③	2935 IN ⑤	MS ⑤	2962 IN ④	MS ④
2882 IN ③	MS ⑤	2909 IN ⑥	MS ⑧ ⁺	2936 IN ④	MS ⑥	2963 IN ①	MS ①
2883 IN ③	MS ⑦	2910 IN ⑤ ^{int.}	MS ⑧ ⁺	2937 IN ⑤	MS ⑥	2964 IN ④	MS ⑤
2884 IN ②	MS ③	2911 IN ⑤ ^{int.}	MS ⑥ ⁺	2938 IN ④	MS ⑥	2965 IN ⑤	MS ⑤
2885 IN ①	MS ②	2912 IN ①	MS ①	2939 IN ④	MS ⑥	2966 IN ⑤ ^{int.}	MS ⑥ ⁺
2886 IN ④	MS ⑤	2913 IN ①	MS ②	2940 IN ⑤	MS ⑤	2967 IN ③	MS ②
2887 IN ③	MS ③	2914 IN ②	MS ②	2941 IN ④	MS ⑤	2968 IN ⑤	MS ⑤

Sceloporus, extra material left for study
for Keise

2969 IN ①	MS -	K79 177 IN ④ ^{int. B}	MS ⑤ ⁺
2970 IN ④ ⁵	MS ⑤-6 ⁺	"-189 IN ⑤ ^{int.}	MS ⑨ ⁺
2971 IN ④	MS ⑤	"-190 IN ④ ^{int. B}	MS ⑤ ⁺
2972 IN ④	MS ⑥	"-191 IN ③	MS ⑤ ⁺
2973 IN ⑤	MS ⑥	"-209 IN ⑤ ^{int. B}	MS ⑥ ⁺
2974 IN ①	MS ①	"-211 IN ⑤ ^{int. B}	MS ⑦ ⁺
2975 IN ③	MS ⑤	"-222 IN ⑤ ^{int. B}	MS ⑧ ⁺
2976 IN ③	MS ③	"-236 IN ⑤ ^{int. B}	MS ⑧ ⁺
2977 IN ④	MS ⑤	"-243 IN ⑤ ^{int. B}	MS ⑥ ⁺
2978 IN ⑥	MS ⑤	"-251 IN ⑤ ^{int. B}	MS ⑥ ⁺
2979 IN ①	MS ①	"-252 IN ⑤ ^{int. B}	MS ⑥ ⁺
2980 IN ④	MS ③		
2981 IN ③	MS ②	(total kept collected with	
2982 IN ③	MS ②	KK was ①89)	
2983 IN ①	MS -		
2984 IN ⑥	MS ⑤		
2985 IN ⑤ ^{int. B}	MS ⑥ ⁺		
2986 IN ②	MS ②		

K79-66 IN ③ ^B	MS ④
"-89 IN ⑤ ^{int.}	MS ⑤
"-127 IN ④	MS ⑤-6 ⁺
"-135 IN ⑤ ^{int. B}	MS ⑥ ⁺
"-136 IN ⑤ ^{int.}	MS ⑧ ⁺
"-140 IN ② ^{int. B}	MS -
"-159 IN ④	MS ⑤

2591 IN ②	MS ②	2618 IN ③	MS ④
2592 IN ④	MS ⑤	2619 IN ④	MS ⑤
2593 IN ①	MS ②	2620 IN ④	MS ⑤
2594 IN ③	MS ④	2621 IN ③	MS ②
2595 IN ④	MS ⑤	2622 IN ①	MS ①
2596 IN ⑤	MS ⑥	2623 IN ①	MS ①
2597 IN ③	MS ④	2624 IN ⑤	MS ⑥
2598 IN ⑤	MS ⑥	2625 IN ③	MS ⑤
2599 IN ①	MS -	2626 IN ①	MS ②
2600 IN ②	MS ②	2627 IN ①	MS -
2601 IN ④	MS ⑤	2628 IN ②	MS ②
2602 IN ④	MS ⑤	2629 IN ②	MS ②
2603 IN ⑤	MS ⑥	2630 IN ②	MS ②
2604 IN ④	MS ④	2631 IN ③	MS ⑤
2605 IN ②	MS ②	2632 IN ②	MS ③
2606 IN ①	MS -	2633 IN ③	MS ③
2607 IN ①	MS ②	2634 IN ④	MS ③ ⁶
2608 IN ⑤	MS ⑥	2635 IN ⑤	MS ⑤
2609 IN ⑤	MS ⑤	2636 IN ③	MS ④
2610 IN ⑤	MS ⑥	2637 IN ③	MS ③
2611 IN ④	MS ⑤	2638 IN ③	MS ③
2612 IN ③	MS ⑤	2639 IN ④	MS ⑦
2613 IN ④	MS ⑤	2640 IN ①	MS ①
2614 IN ①	MS ②	2641 IN ④	MS ⑤
2615 IN ①	MS ①	2642 IN ④	MS ⑤
2616 IN ③	MS ⑤	2643 IN ①	MS ①
2617 IN ③	MS ②	2644 IN ④	MS ⑤

2645 IN ①	NS —	2672 IN ③	NS ④
2646 IN ⑤	NS ⑥	2673 IN ②	NS ③
2647 IN ④	NS ⑤	2674 IN ①	NS —
2648 IN ④ ⁺	NS ④ ⁺	2675 IN ④	NS ③
2649 IN ②	NS ②	2676 IN ②	NS ②
2650 IN ①	NS ①	2677 IN ④	NS ④
2651 IN ③	NS ②	2678 IN ③	NS ③
2652 IN ②	NS ②	2679 IN ③	NS ⑤
2653 IN ②	NS ①	2680 IN ⑤	NS ④
2654 IN ③	NS ⑤	2681 IN ④	NS ④
2655 IN ③	NS ③	2682 IN ④	NS ⑤
2656 IN ③	NS ②	2683 IN ②	NS ②
2657 IN ④ ¹	NS ④ ²	2684 IN ④	NS ⑤
2658 IN ④	NS ⑤	2685 IN ④	NS ⑤
2659 IN ①	NS ①	2686 IN ②	NS ③
2660 IN ①	NS —	2687 IN ④	NS ④
2661 IN ②	NS ③	2688 IN ③	NS ④
2662 IN ③	NS ③	2689 IN ⑤	NS ⑤
2663 IN ①	NS ①	2690 IN <i>missing</i>	NS ?
2664 IN ①	NS —	2691 IN ⑤	NS ⑤
2665 IN ①	NS ①	2692 IN ④	NS ⑤
2666 IN ①	NS ①	2693 IN ⑤	NS ⑥
2667 IN ③	NS ③	2694 IN ③	NS ③
2668 IN ③	NS ③	2695 IN ③	NS ③
2669 IN ①	NS —	2696 IN ⑤	NS ⑥
2670 IN ⑤	NS ④	2697 IN ③	NS ⑤
2671 IN ①	NS ③	2698 IN ④	NS ⑥

2699 IN ④	NS ⑥	2726 IN ③	NS ③
2700 IN ③	NS ④	2727 IN ⑤	NS ⑥
2701 IN ③	NS ④	2728 IN ④	NS ⑤
2702 IN ③	NS ③	2729 IN ⑤	NS ⑥
2703 IN ⑤	NS ⑤	2730 IN ③	NS ④
2704 IN ③	NS ⑤	2731 IN ⑤	NS ⑤
2705 IN ①	NS ②	2732 IN ③	NS ④
2706 IN ③	NS ④ ⁺	2733 IN ④	NS ④
2707 IN ③	NS ④	2734 IN ④	NS ⑥
2708 IN ⑤	NS ⑤	2735 IN ⑤	NS ⑦
2709 IN ③	NS ③	2736 IN ④	NS ⑤
2710 IN ③	NS ③	2737 IN ③	NS ⑦
2711 IN ③	NS ③	2738 IN ③	NS ⑤
2712 IN ⑤	NS ⑤	2739 IN ④	NS ⑤
2713 IN ⑥	NS ⑥	2740 IN ②	NS ③
2714 IN ③	NS ⑤	2741 IN ②	NS ②
2715 IN ④	NS ⑤	2742 IN ⑤	NS ⑥
2716 IN ④ ⁵⁺	NS ⑥	2743 IN ④	NS ⑤
2717 IN ④	NS ⑥	2744 IN ②	NS ②
2718 IN ③	NS ③	2745 IN ③	NS ③
2719 IN ③	NS ⑤	2746 IN ④	NS ⑥
2720 IN ④	NS ④	2747 IN ③	NS ③
2721 IN ⑤	NS ⑥	2748 IN ⑤	NS ⑥
2722 IN ③	NS ⑦	2749 IN ②	NS ② ^{Fam. Sweep.}
2723 IN ④	NS ⑥	2750 IN ①	NS ①
2724 IN ④ ²	NS ④ ²	2751 IN ①	NS —
2725 IN ③	NS ④	2752 IN ⑤	NS ⑤

2753 IN ①	MS ②	2780 IN ⑤ ^{includes}	MS ⑦⑧
2754 IN ④	MS ⑦	2781 IN ③	MS ③
2755 IN ⑤ ^{includes}	MS ⑥	2782 IN ⑤ ^{includes}	MS ②⑦
2756 IN ⑤ ^{includes}	MS 6 to 4	2783 IN ⑤ ^{includes}	MS ⑦
2757 IN ⑤	MS ⑥	2784 IN ③	MS ⑤
2758 IN ④	MS ⑤	2785 IN ⑤	MS ⑤
2759 IN ③	MS ③	2786 IN ④	MS ⑤
2760 IN ⑤	MS ⑤	2787 IN ⑤	MS ⑨
2761 IN ④	MS ④	2788 IN ②	MS ③
2762 IN ③	MS ③	2789 IN ⑥	MS ⑧
2763 IN ③	MS ⑤	2790 IN ②	MS ④
2764 IN ③	MS ④	2791 IN ③	MS ⑥
2765 IN ⑤	MS ⑥	2792 IN ④	MS ⑧
2766 IN ③	MS ③	2793 IN ⑤	MS ④
2767 IN ②	MS ②	2794 IN ③	MS ④
2768 IN ③	MS ④	2795 IN ⑤	MS ⑤
2769 IN ③	MS ④	2796 IN ①	MS ①
2770 IN ③	MS ③	2797 IN ③	MS ④
2771 IN ⑤ ^{includes}	MS ⑦⑧	2798 IN ①	MS -
2772 IN ①	MS -	2799 IN ⑤	MS ⑤
2773 IN ⑦	MS ⑨	2800 IN ⑧	MS ⑥
2774 IN ①	MS ②	2801 IN ⑤	MS ⑤
2775 IN ④	MS ③	2802 IN ⑤	MS ⑤
2776 IN ①	MS -	2803 IN ④	MS ⑤
2777 IN ②	MS ③	2804 IN ⑤	MS ⑤
2778 IN ⑤	MS ⑤	2805 IN ②	MS ①
2779 IN ①	MS ①	2806 IN ③	MS ⑤

2507. INPA 1. MS	2537 IN ③	MS ③
2508 - IN ② ^{MS ③}	2538 IN ③	MS ④
2509 INPA 3 ^{MS 4}	2539 IN ^{missing}	MS ?
2510 IN-2, MS 2	2540 IN ④	MS ④
2511 IN 2, MS 3	2541 IN ④	MS ④
2512 IN 3 MS 3	2542 IN ④	MS ④
2513 IN ① MS ①	2543 IN ①	MS ②
2514 IN ③ MS ④	2544 IN ④	MS ④
2515 IN ④ MS ⑤	2545 IN ①	MS ②
2516 IN ① MS ②	2546 IN ③	MS ③
2517. Pariond ^{MS ③}	2547 IN ②	MS ③
2518 IN ③ MS ③ ^{INPA}	2548 IN ⑤	MS ⑥
2519 IN ⑤ ^{includes} , MS, 5 to	2549 IN ④	MS ④
2520 IN 3, MS, 5, 4	2550 IN ④	MS ⑤
2521 IN ① MS ②	2551 IN ④	MS ⑤
2522 IN ④ MS ⑤	2552 IN ④	MS ⑤
2523 IN ③ MS ④	2553 IN ④	MS ⑤
2524 IN ③, MS 3	2554 IN ④	MS ⑤
2525 IN ③ MS 3	2555 IN ④	MS ⑤
2526 IN ④ MS ④	2556 IN ⑤	MS ⑦
2527 IN ④, MS ④	2557 IN ⑤	MS ⑦
2528 IN ④, MS ⑤	2558 IN ⑤	MS ⑥
2529 IN ④, MS ⑥	2559 IN ①	MS ②
2530 IN ④, MS ③	2560 IN ④	MS ⑤
2531 IN ③ MS ④	2561 IN ④	MS ⑤
2532 IN ③ MS ③	2562 IN ③	MS ⑦
2533 IN ⑤ MS ⑥	2563 IN ⑤	MS ⑥
2534 IN ① MS ①		
2535 IN ③ MS ③		
2536 IN ① MS ①		

3

1

2564 IN (4)	MS (5)	2492 IN (3)	US (2)
2565 IN (4)	MS (5)	2493 IN (3)	US (2)
2566 IN (4)	MS (6)	2494 IN (7)	US (8)
2567 IN (4)	MS (5)	2495 IN (3)	US (3)
2568 IN (4)	MS (5)		
2569 IN (3)	MS (5)	1 ^a m. de Anagoria	
2570 IN (6)	MS (8)	2496 IN (5)	MS (7)
2571 IN (3)	MS (4)	2497 IN (2)	MS (2)
2572 IN (4)	MS (4)	2498 IN (2)	MS (2)
2573 IN (4)	MS (5)	2499 IN (4)	US (4)
2574 IN (3)	MS (4)	2500 IN (1)	MS —
2575 IN (5)	MS (6)	2501 IN (4)	MS (4)
2576 IN (5)	MS (4)	2502 IN (1)	MS (1)
2577 IN (4)	MS (4)	2503 IN (2)	MS (2)
2578 IN (4)	MS (5)	2504 IN (1)	MS (1)
2579 IN (6)	MS (7)	2505 IN (3)	US (3)
2580 IN (5)	MS (5)	2506 IN (3)	MS (4)
2581 IN (4)	MS (5)		
2582 IN (6)	MS (7)		
2583 IN (5)	MS (6)		
2584 IN (4)	MS (5)		
2585 IN	MS (5)		
2586 IN (4)	MS (5)		
2587 IN	MS (5)		
2588 IN	MS (5)		
2589 IN	MS (5)		
2590 IN (5)	MS (6)		

James Zarucchi
Harvard Botanical Museum

Apocynaceae

esp. Couma, Parahancornia,
Hancornia, Lacmellea,
Pacouria, + Ambelonia s.l.

for the -

important.

Neocouma
ternstroemiaceae
(fls)

Sent to Velva Rueda a duplicate

J. F. Ramos
O. P. Monteiro
J. Guedes
Aurea
Silene
Lucia de Almeida?
Sebastian "Saba"

Losme Damian
Dionizio
Luis > Welto
de Lima
Sen Raimundo (copied)

3

2564 IN (4)	MS (5)	2492 IN (3)	US (2)
2565 IN (4)	MS (5)	2493 IN (3)	US (2)
2566 IN (4)	MS (6)	2494 IN (7)	US (8)
2567 IN (4)	MS (5)	2495 IN (3)	US (3)
2568 IN (4)	MS (5)		
2569 IN (3)	MS (5)	1 st majo. <u>Amazonia</u>	
2570 IN (6)	MS (8)	2496 IN (5)	MS (7)
2571 IN (3)	MS (4)	2497 IN (2)	MS (2)
2572 IN (4)	MS (4)	2498 IN (2)	MS (2)
2573 IN (4)	MS (5)	2499 IN (4)	US (4)
2574 IN (5)	MS (4)	2500 IN (1)	MS —
2575 IN (5)	MS (6)	2501 IN (4)	MS (4)
2576 IN (5)	MS (4)	2502 IN (1)	MS (1)
2577 IN (4)	MS (4)	2503 IN (2)	MS (2)

1

James Zarucchi
Harvard Botanical Museum

Apocynaceae
esp. Couma, Parahancornia,
Hancornia, Lacmellea,
Pacouria, + Ambelania s.l.
for the -

important.
Neocouma
ternstroemiacea
(fls)

Sent to Velva Rudd a duplicate
or a piece, at least of the 3
specimens she saw or identified
one from R N & 2 from Muriel
one is the genus name after Mle.

R. Nipiro: 79-208. Machaerium (read e
piece).

BAHIA, B

Mun. de Mucugé, Serra do Sincor
to Andaraí. Elev. 950 m. Growing
soil near the top of mountain
orchids and Bromeliaceae. Small
sticky leaves, few plants flower
in color.

9 May 1976

Cleofé E. Calderón, Talmón S. Santos, and

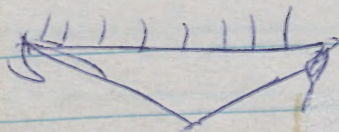
*Collected under the auspices of the Smith
Society, and Centro de Pesq.*

Flora del Arica -

$$\begin{array}{r} 2986 \\ - 2492 \\ \hline 494 \\ 189 \\ \hline 683 \\ 15 \\ \hline 698 \end{array}$$

Angara
R. Negro
Bahia

2496, 1^o no of Amazonian collection
(not Manaus)



2519^v 1I, 5G, -^v 2I, 4G, -

"2706"

2733^v 1I, 3G, -^v 1I, 3G, -

2754^v 2I, 4G, 1R^v 2I, 3G, ~~4R~~ -

2755^v 2I, 6G, 1R^v 2I, 5G, 1R

2756^v 1I, 3G, 1R^v 1I, 2G, 1R

2771^v 1I, 2G, -^v 1I, 2G, -

2780^v , 3G, ^v 1I, 3G,

2782^v 1I, 3G, -^v 1I, 3G, -

2783^v 3I, 4G, 1R^v 3I, 5G, 1R

2784 no bulky?

2813^v 1I, 3G, -^v 2I, 3G, -

2833^v 2I, 3G, 4S, 1R^v 3I, 3G, 1R, 2S

2846^v 1I, 4G, 1R^v 1I, 3G, 2R

2867^v 2I, -, 1R^v 2I, -, 1R

2870^v 1I, 4G, 1R^v 2I, 4G, 1R

2873^v 2I, 2G, 1R^v 2I, 2G, 1R

2829^v 1I, 4G, 1R^v 1I, 3G, 1R

2818^v 2I, 4G, -^v 2I, 4G, -

2874^v 2I, 3G, 1R^v 2I, 2G, 1R

2894^v 2I, 4G, 1R^v 2I, 4G, 1R

2910^v 2I, 5G, 1R^v 2I, 5G, 2R, ~~4R~~

2911^v 2I, 5G, 2R^v 2I, 4G, 1R

2926^v -, 3G, -^v -, 4G, -

2966 & 2970

G - IDENTIFICAÇÃO DOS RESPONSÁVEIS PELA I

RESPONSÁVEL DIRETO: MA. SÍLVIA de MENDONÇA
Nome

LOCAL: INPA

COORDENADOR SUB-REGIONAL: _____
Nome

LOCAL: _____

COORDENADOR REGIONAL: _____
Nome

LOCAL: _____

H - OBSERVAÇÕES

2496, 1^o no of Amazonian collection
(not Manaus)

